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**Sauget/Cahokia Sites
Project L1630200005
St. Clair County**



Illinois Environmental Protection Agency

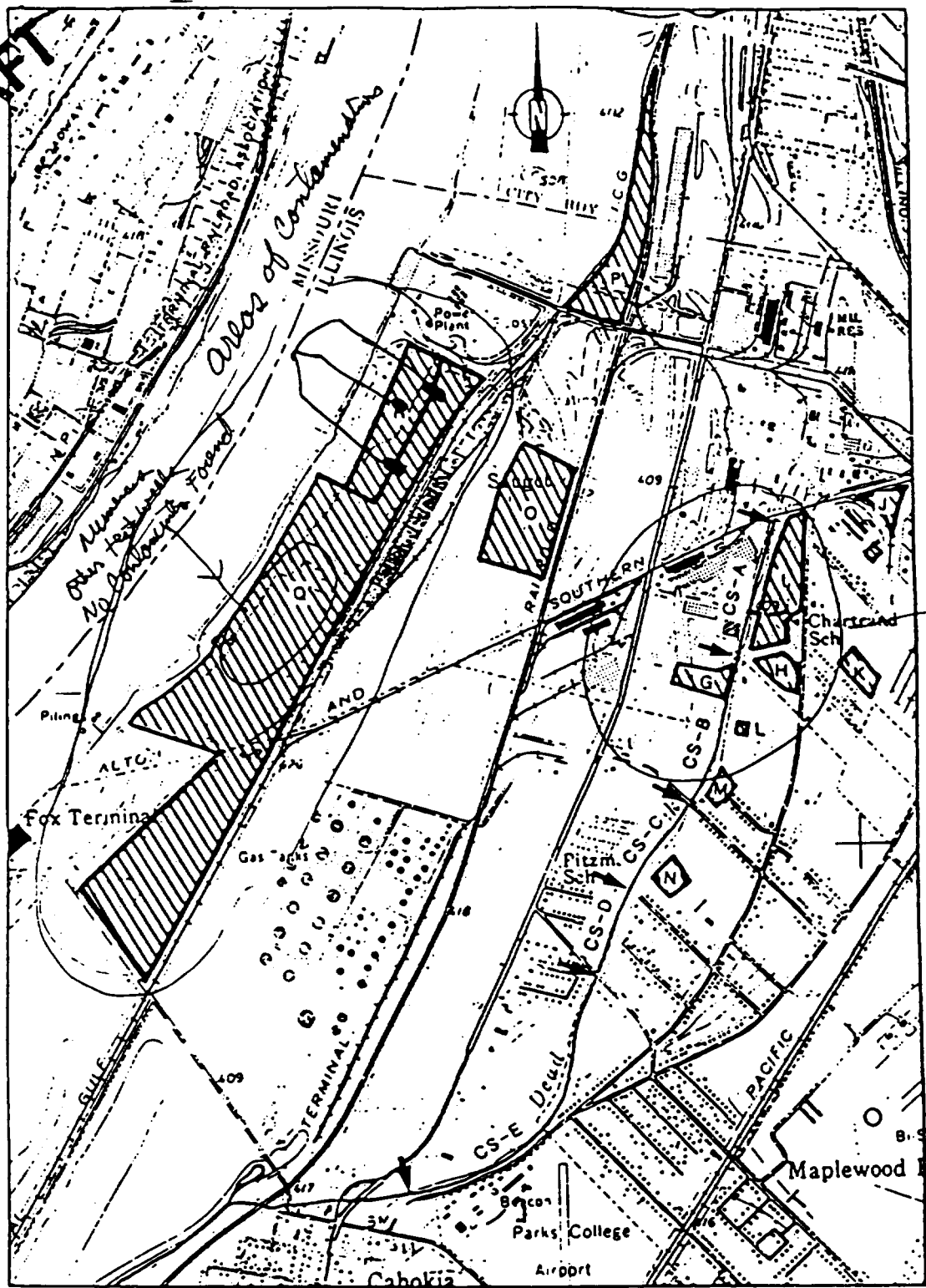
-Sauget/Cahokia Sites Project L1630200005

Scope of Work

- Locate and define types and quantities of hazardous materials at the DCP sites;
- Provide a detailed description of area hydrogeology and its effect on contaminant migration and fate;
- Provide a comprehensive catalog of wastes present at the various project sites;
- Where possible, locate or define sources of contaminant releases;
- Identify past, present, and anticipated methods or pathways of contaminant release, and specific contaminants released;
- Assess the expected movement of contaminants in the matrices sampled, and identify potential receptors of contaminants; and
- Provide a data base for HRS scoring of the sites.

DRAFT

Area
2



Area

SOURCE: USGS Cahokia Quad, 1974.

SCALE

0 0.5 1 MILE

FIGURE 2-2 SITE REPORTING DESIGNATIONS FOR THE DEAD CREEK PROJECT

SITE BACKGROUND

SITE DESCRIPTION

The DCP area is located in and around the cities of Sauget (formerly Monsanto) and Cahokia in west-central St. Clair County, Illinois. The project area consists of 12 suspected uncontrolled hazardous waste sites, and six segments of Dead Creek, which is an intermittent stream flowing southerly in the eastern portion of the project area. To avoid confusion stemming from various file designations or aliases for the various sites or creek sectors, each site or creek sector has been assigned an alphabetical designation (see Figure 2-2). The disposal sites occupy approximately 220 acres.

ABANDONED LANDFILL

Site G. Site G is a former subsurface/surface disposal area which occupies approximately 4.5 acres. The site is located in Sauget and is bordered on the north by Queeny Avenue, on the east by Dead Creek, on the south by a cultivated field, and on the west by Viese Engineering Company property.

The surface of Site G is littered with demolition debris and metal wastes. Two small pits are located in the northeast and east-central portions of the site. Oily and tar-like wastes, along with scattered corroded drums, are found in these areas. Additionally, 20 to 30 deteriorated drums are scattered along a ridge running east-west, near the southern perimeter of the site. The western portion of Site G contains a mounded area with several corroded drums protruding from the surface. A large depression is found immediately south of the mounded area. This depression receives surface runoff from a sizable area within the site. Exposed debris is also present over most of the site. In areas where wastes are not exposed, fly ash and cinder material has been used as cover. Presently, a chain-link fence surrounds Site G. The fence was constructed in May 1987 as a response action after high levels of organic contamination were detected in surficial soils.

ROGER'S CARTAGE PROPERTY

Site H. Site H is a former subsurface disposal area covering approximately 5 acres. The site is located in Cahokia immediately southwest of the intersection of Queeny Avenue and Falling Springs Road. On the surface, Site H is an open field which has been covered, vegetated, and graded. Several depression areas, capable of retaining rainwater, are also evident across the site. Surface drainage is generally to the west; although certain localized drainage is toward the depressions. Waste material is not evident on the surface of the site. Access to Site H is not controlled.

CERRO COPPER PRODUCTS

Site I. Site I, in Sauget, consists of approximately the eastern one-third of the Cerro Copper Products (Cerro) property. Cerro is a copper refining and tube manufacturing facility. Site I is approximately 55 acres in area and is a former sand and gravel pit which was subsequently filled with unknown wastes. Two holding ponds (Creek Sector A) which formerly served as headwaters for Dead Creek are located along the west side of Site I. The former gravel pit/fill area was covered and graded, and is presently used for equipment and scrap storage and truck trailer parking. No waste material or drums are evident on the surface of Site I. Access to the entire Cerro property is controlled by a chain-link fence and a 24-hour guard at the main entrance to the facility.

STERLING STEEL FOUNDRY

Site J. Site J is in two segments on the Sterling Steel Foundry Property in Sauget in the eastern part of the OCP. It consists of two pits and a surface disposal area presently utilized by Sterling. The surface disposal area, occupies approximately 5 acres triangular area northeast of the plant buildings, south of Alton and Southern Railroad, and west of a bermed area. Casting sand, slag, and miscellaneous debris covers this entire area. A small pit contiguous to the triangular area, north of the main foundry building has been partially filled with casting sand and baghouse dust. No evidence of chemical waste disposal is apparent in this area. A larger pit is situated southeast of the plant buildings. This pit has been partially filled with casting sand and miscellaneous debris. The larger pit is approximately 25 feet deep, and there is water at the the bottom of it. The entire Sterling property is bordered by a chain-link fence; however, the entrance gate is not locked or guarded.

FORMER SAND PIT

Site K. Site K is of a former sand pit identified through of historical aerial photographs. The pit has been filled with unknown materials and covered with soil and gravel, and the area has been graded to the surrounding topography. The site is located in Sauget north of a residential area on Queeny Avenue, and east of Falling Springs Road. Site K covers approximately 6 acres and is presently unoccupied. Several trailer homes and houses are located within 100 feet of the site. Access to Site K is not restricted.

OLD WAGGONER COMPANY IMPOUNDMENT

Site L. Site L is the location of a former surface impoundment used by a hazardous and special waste hauler to dispose of wash water from truck cleaning operations. The dimensions of the impoundment are approximately 70 feet by 150 feet. The impoundment was approximately 250 feet south of the present Metro Construction Equipment Company (Metro) building, and approximately 125 feet east of Dead Creek in Cahokia. The site is now covered with black cinders, and is used by Metro for equipment storage. Several rows of heavy construction equipment are presently stored in the site area. No waste material is apparent at the surface of Site L. Access to the area is not controlled.

H.H. HALL CONSTRUCTION CO.

Site M. Site M, in Cahokia, is a former sand pit excavated by the H.H. Hall Construction Company in the mid to late 1940s. It is located immediately east of Dead Creek, and approximately 300 feet north of Judith Lane. The dimensions of the pit are approximately 275 by 350 feet, and the estimated depth is 40 feet. The pit is presently filled with water, although it remains unclear whether the water is a surface expression of the groundwater, or simply collected rainwater and drainage. Site M is connected to CS-8 of Dead Creek by a drainageway, or cut-through, located in the southwest corner of the pit.

This cut-through is approximately 8 feet wide, and allows flow between the creek and the pit. The east bank of the pit is strewn with miscellaneous trash and debris. Other than this material, no evidence of waste disposal is apparent in the pit.

Presently, Site M is enclosed by a chain-link fence, which also encompasses CS-8. A small residential area is located just east of the pit on Walnut Street, which earlier served as an access road to Site M. The pit was excavated prior to any residential development on this street.

H.H. HALL CONSTRUCTION CO.

Site N. Site N is an excavated area in the southwest corner of an inactive construction yard owned by the H.H. Hall Construction Company of East St. Louis. The site is 4 acres in area and is bordered on the northwest by Dead Creek. The excavated area has been partially filled with construction and demolition debris, but the area remains below the surrounding topography.

The Hall property is presently used only for equipment storage. Access to the Hall property is restricted by a chain-link fence with a padlocked gate.

SAUGET WASTE WATER TREATMENT PLANT

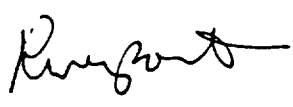
Site O. Site O contains four inactive sludge dewatering lagoons associated with the Sauget Waste Water Treatment Plant. The site is located on Mobile Avenue in Sauget. The property covers approximately 45 acres in a heavily industrialized area. The former sludge lagoons Site O covers approximately 20 acres to the south of the treatment plant buildings. The lagoons have been covered with a clay cap and vegetated, and no waste material is evident on the surface. An access road to the new American Bottoms Treatment Plant, located immediately southwest of the former lagoons, runs through the middle of the site. Although chain-link fencing surrounds most of the site, vehicular traffic on the access road is not restricted.

SAUGET/MONSANTO LANDFILL

Site P. Site P is an inactive, IEPA-permitted landfill covering approximately 20 acres in the northern part of the DCP in Sauget. The site is bordered on the west by Illinois Central Gulf Railroad tracks; on the south by Monsanto Avenue; and on the east by the Terminal Railroad Association railroad tracks. The two railroads converge at the north end of the site.

Site P is characterized by steep sloping landfill sides along its east and south-central portions. The majority of the site is covered with cinders. Deep erosional channels are prevalent along the slopes. The south-central portion of the site was not landfilled because of the presence of a potable water line in this area. A nightclub and parking lot presently occupy approximately 3 acres in the southeast corner of the site. Access to the site is not restricted.

SAUGET/SAUGET LANDFILL


Site Q. Site O is an inactive waste disposal facility in Sauget and Cahokia. The facility was operated by Sauget and Company between 1966 and 1973. The site covers approximately 90 acres. The site is located on east bank of the Mississippi River between the Mississippi and United States Army Corps of Engineers (COE) flood control levee. The northern one-third of Site O is situated immediately east of Site R.

The majority of Site O is presently occupied by the Pillsbury Company, which operates a coal and grain unloading and transfer facility on the property. Large mounds of coal and cinders are present in the northern one-half of the property. The southern portion of the site is presently unoccupied. Some random dumping of household-type waste is evident in this area. A railroad spur divides the site, running north from the Alton and Southern Railroad tracks to the northern one-third of the property, where it ends. Several ponds, including two in the east-central portion and two in the area south of the Alton and Southern Railroad tracks, also exist on the site. Vehicular access to Site O is presently restricted by fencing in the northern portion of the site and by a 24-hour guard at the main gate. Pedestrian access to the site, however, is unrestricted in the southern portion of the site.

SAUGET TOXIC DUMP

Site R. Site R, in Sauget, is the Sauget Toxic Dump (also known as the Krummrich Landfill), an inactive industrial waste landfill owned by the Monsanto Chemical Company (Monsanto) and used by the Monsanto as a landfill between 1957 and 1977. Site R occupies approximately 36 acres. The site is located immediately west and north of Site O. A Monsanto feedstock tank farm is located adjacent to the site on the northwest side, between Site R and the Mississippi. Site R is presently covered with a clay cap vegetated. Drainage flows to ditches around the perimeter of the site. The riverbank adjacent to the site is covered with rip-rap consisting of large rocks and boulders. Access to Site R is restricted by a chain-link fence, and television cameras are used to monitor activity at the main gate. A second gate provides access through Site O.

Dead Creek Sectors A and B. Creek Sector A (CS-A), is on Cerro products property in Sauget and is located immediately west of the former sand pit which constitutes Site I of the DCP. The creek in this area presently consists of two holding ponds which receive surface runoff and roof drainage from Cerro. According to Cerro officials, no process wastewater, cooling water, or other waste is discharged to the ponds. The water in CS-A is highly discolored and oily, as evidenced by staining along the creek banks. A culvert located at the south end of CS-A under Queeny Avenue was blocked some time in the early 1970s to prevent flow to the remainder of the creek. Since CS-A lies entirely on access is as described above for Site I.

Creek Sector B (CS-B) is the portion of Dead Creek lying between Queeny Avenue and Judith Lane in Sauget and Cahokia. Three other sites in the DCP study area are located adjacent to CS-B, namely, Site G to the northwest, Site L to the northeast, and Site M to the southeast. All of these sites have been identified at one time or another as possible sources of pollution in CS-B. Presently, CS-B and Site M encompassed by a chain-link fence which was installed by the USEPA in 1982. The banks of the creek are heavily vegetated, and debris is scattered throughout the northern one-half of CS-B. Culverts at Queeny Avenue and Judith Lane have been blocked, preventing any release of contaminants to the remainder of the creek. Water levels in the creek

Dead Creek Sectors C through F. Creek Sectors C through F include the entire length of Dead Creek south of Judith Lane. This portion of the creek flows south-southwest through the Village of Cahokia prior to discharging into the Prairie DuPont Floodway. The floodway subsequently discharges into the Cahokia Chute of the Mississippi River. The creek is wider in these sectors than in Sectors A and B, and the banks are not as heavily vegetated as along CS-B. In the southern portion of CS-D, near Parks College, the creek runs underground through a corrugated pipe. The creek resurfaces briefly at the intersection of Illinois Route 157 and Falling Springs Road. Downstream of this point, the creek runs west through a series of culverts prior to draining into a wetland area west of Illinois Route 3.

Creek Sectors C through F are delineated as follows: CS-C, Judith Lane to Cahokia Street; CS-D, Cahokia Street to Jerome Street; CS-E, Jerome Street to the intersection of Illinois Routes 3 and 157; and CS-F, from this intersection to the discharge point in Old Prairie DuPont Creek. Access to Creek Sectors C through F is unrestricted, and children have been observed playing in and around the creek on several occasions.

HISTORY

The study area for the Dead Creek Project (DCP) consists of 18 sites in the towns of Sauget and Cahokia in St. Clair County, Illinois (see attached map). The Illinois EPA became aware of the problems in this area in 1980 when periodic smoldering of materials in a ditch (Dead Creek) was observed. Following an initial inspection, the agency received information that a local resident's dog had come in contact with wastes in the ditch and died of apparent chemical burns.

Historically, during World War II, the study area was heavily developed by industry to support the war effort. Due to this development and the geologic conditions in the area, open pit mining occurred in many areas to supply sand and gravel resources. Following the war, excess product was landfilled and covered in the numerous excavations. Wastes reported to have been buried in these excavations include phosgene gas and munitions in addition to organic and inorganic industrial wastes. The excavated areas were identified by the Illinois EPA from a series of past aerial photographs, and by a thermal infrared survey of the area.

The filling of past excavations was followed by utilization of Dead Creek as receiving water for effluent and surface drainage of various industries. The Illinois EPA performed a preliminary study of the area in 1980, finding excessive levels of organic and inorganic contaminants in and around the creek. Contaminants detected included: PCBs, aliphatic hydrocarbons, dichlorobenzene, lead, cadmium, and arsenic. During the Illinois EPA study, drillers were overcome by organic vapors while installing a monitoring well east of the creek

and adjacent to a former seepage lagoon. Sampling of this well and the lagoon indicated high levels of the aforementioned contaminants.

Following World War II, chemical companies in the area returned to normal processes, including the manufacturing of defoliants, pesticides, and herbicides. From the mid-1950s to the early 1970s, the byproducts and wastes from these manufacturing processes were land-filled in the Site R and possibly Site Q areas (see map). Drilling and sampling by E & E in 1983 at Site Q indicated the presence of 63 of the 117 priority pollutants designated by the USEPA, including quantifiable levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Dioxin was also detected in soil samples at Site O. Site P is an Illinois EPA-permitted landfill known to have accepted hazardous waste residues in violation of their permit.